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09/876,230	06/08/2001	Vaughn E. Keenan	04694.00073	6194
27160 7590 04/23/2007 PATENT ADMINISTRATOR KATTEN MUCHIN ROSENMAN LLP 1025 THOMAS JEFFERSON STREET, N.W. EAST LOBBY: SUITE 700 WASHINGTON, DC 20007-5201			EXAMINER MISLEH, JUSTIN P	
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SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/876,230	KEENAN ET AL.	
	Examiner	Art Unit	
	Justin P. Misleh	2622	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 January 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 4 - 26, 28 - 42, 44 - 52, 54 - 64, and 66 - 95 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 4 - 26, 28 - 42, 44 - 52, 54 - 64, and 66 - 95 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed January 22, 2007 have been fully considered but are not persuasive.
2. Applicant argues, "The primary reference [Ishikawa Masahito] relied upon by the Examiner shows an electronic blackboard comprising an image sensor that captures images of a writing surface." Applicant further argues, "As understood by the Applicants, only characters drawn with a red pen tool, straight lines drawn with a green pen tool and graphic forms drawn with a blue pen tool are recognized and used during formation of the output image generated by output unit 21." Applicant subsequently concludes, "It appears therefore that a straight line drawn with a red pen tool or characters drawn with a green pen tool are not recognized. The output image therefore does not include all visible pen strokes on the writing surface irrespective of the pen tool used to make the pen stroke or irrespective of color."
3. The Examiner respectfully disagrees with Applicant's position. According to Ishikawa Masahito (see English-language translation by provided by Akiko Smith on March 5, 2007; attached to this Office Action), "the color camera 9 photographs the entire writing board 2 ... the output of characters 6 to the red output terminal 10 is great but the image signal output components of other linear line 7 and graphs 8 are very small" (see paragraph 0012). Ishikawa Masahito further states, "the image signal output to the green output terminal 11 is great but the signal outputs of other characters 6 and graphs 8 are small ... the image signal output of graphs 8 to the blue output terminal 12 is great but the outputs of characters [6] and linear lines 7 are

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small” (see paragraphs 0013 and 0014). Finally, Ishikawa Masahito states, “the electronic characters and electronic graphs ... are sent to the subsequent character-graph synthesizing device 20 and simultaneously synthesized with the graph ... thus, a high quality electronic document is created and is output from the output device 21” (see paragraph 0018).

4. Hence, Ishikawa Masahito indeed captures everything on the writing surface and creates an electronic document to represent what is captured. Using Applicant’s hypothetical example, “a straight line drawn with a red pen tool” would be captured/categorized/determined to be a character, whether or not it is actually a “character”, and processed accordingly (via character processing branch 10; see figure 1). Likewise, “characters drawn with a green pen tool” would be captured/categorized/determined to be linear lines, whether or not they are actually “linear lines”, and processed accordingly. The Examiner respectfully submits the color of the pen tool or the pen tool used in Masahito does not affect what is captured on the writing surface or how it is captured from the writing surface – rather, the color of the pen tool or the pen tool used affects how the electronic document is created (i.e., affects the processing of the captured image into an electronic document).

5. Therefore, contrary to Applicant’s position, the output image therefore does include all visible pen strokes on the writing surface irrespective of the pen tool used to make the pen stroke or irrespective of color.

### ***Claim Objections***

6. **Claims 1, 23, 56, 62, and 64** are objected to because of the following informalities: lack of clarity and precision.

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7. The respective claims recite therein “said target area” when “writing surface” and/or “write board” has been previously introduced. For the purposes of clarity and precision, the Examiner recommends changing appropriate occurrences of “said target area” to “said writing surface” and/or “said write board”. Examples of occurrences can be found in Claim 1 (lines 8 and 9), Claim 23 (lines 13 and 14), Claim 56 (line 11), and Claim 62 (line 11).
8. For the similar reasons, the Examiner recommends changing “the pen tool” of Claim 56 (line 13) to “a pen tool” and changing “said surface” of Claim 64 (line 2) to “said write board”.
9. **Appropriate correction is required. Applicant strongly encouraged to review all claim language for similar issues and correct appropriately.**

***Claim Rejections - 35 USC § 102***

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. **Claims 56 – 58 are rejected under 35 U.S.C. 102(b) as being anticipated by Ishikawa Masahito et al. (JP 09-224111 A).**

NOTE: A computer translation of Ishikawa et al. will be used in the following rejections. However, for additional support, a human English-language translation by provided by Akiko Smith on March 5, 2007 is newly attached to this Office Action (see form PTO-892).

12. For **Claim 56**, Ishikawa et al. disclose, as shown in figure 1 and as indicated in paragraphs 11 – 20, a system for capturing images of a writing surface (2) comprising:

a boom (clearly shown in figure 1; although not expressly labeled) extending outwardly from a wall surface (The Examiner considers to the *blackboard surface 2* to be a *wall surface*, as claimed.) and being positioned above said writing surface, said boom being fixed and stationary in relation to said writing surface (As clearly shown in figure 1, the camera 9 is positioned via two support arms, not labeled, that extend *horizontally* and *perpendicularly* from the plane of the target area 2; the boom is fixed to a support structure of the writing surface);

an optical recording device (“color camera 9”) mounted on said boom at a location laterally spaced from said writing surface (“field 2”; seen clearly from figure 1), said optical recording device (9) being aimed towards said writing surface (2); and

a controller (output unit 21) in communication with said optical recording device (9), said controller (21) conditioning said optical recording device to acquire an image of said writing surface in response to operator input (not explicitly recited; however, all electronic devices inherently require at least some operator input, such as powering the device on/off) and processing the acquired at least one image to yield a digital output image, said digital output image comprising all visible pen strokes on said writing surface irrespective of the pen tool used to make said pen strokes (see Response to Arguments above; also see human English-language translation of Ishikawa et al.; paragraphs 0012 – 0014).

13. As for **Claim 57**, Ishikawa et al. disclose, as shown in figure 1, wherein said boom is positioned adjacent the midpoint of said writing surface (2).

14. As for **Claim 58**, Ishikawa et al. disclose, as clearly shown in figure 1, wherein the boom (not expressly labeled) includes a wall mount (not expressly labeled; although the boom is clearly shown to be attached to the upper left and upper right walled surfaces of the electronic

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blackboard 2), a boom arm (*two* boom arms) extending outwardly from said wall mount (again not expressly labeled) and a camera head (9) adjacent a distal end of said boom arm (clearly shown in figure 1), said camera head (9) accommodating said optical recording device (9).

***Claim Rejections - 35 USC § 103***

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. **Claims 1, 4, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa Masahito et al. (JP 09-224111 A) in view of Komori Shigehiro et al. (JP 08-108689 A).**

NOTE: A computer translation of Ishikawa et al. and Komori et al. will be used in the following rejections. However, for additional support, a human English-language translation for Ishikawa Masahito et al. by provided by Akiko Smith on March 5, 2007 and a human English-language translation for Komori Shigehiro et al. provided by Schreiber Translation in March 2007 are newly attached to this Office Action (see form PTO-892).

17. For **Claim 1**, Ishikawa et al. disclose, as shown in figure 1 and as indicated in paragraphs 11 – 20, a camera-based system for capturing images of a writing surface (2) comprising:

a generally horizontally extending boom assembly (clearly shown in figure 1; although not expressly labeled), said boom assembly being positioned above said writing surface (As

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clearly shown in figure 1, the camera 9 is positioned via two support arms, not labeled, that extend *horizontally* and *perpendicularly* from the plane of the target area 2);

at least one digital camera (“color camera 9”) mounted on said boom assembly at a location spaced from the plane of said writing surface (“field 2”; seen clearly from figure 1), said at least one digital camera (9) being oriented so that the field of view thereof encompasses said target area (2); and

a controller (output unit 21) being in communication with said at least one digital camera (9), said controller (21) receiving image data from said at least one digital camera (9) and processing said image data to form an output digital image of said writing surface (2) including all visible writing thereon irrespective of color (see Response to Arguments above; also see human English-language translation of Ishikawa et al.; paragraphs 0012 – 0014).

However, Ishikawa et al. is silent with respect to the boom assembly having a length of from about 30 to 50 inches, as claimed.

On the other hand, Komori et al. also provide a camera system capturing images of a target area having a boom assembly. Specifically, Komori et al. teach, as shown in figures 1 and 2, a wall surface/target area (1) having a boom assembly (3) connected thereto, wherein the boom assembly (3) extends generally horizontally from the wall surface/target area (1). Furthermore, in paragraphs 007 – 009, Komori et al. indicate that the blackboard writing surface has common dimensions of 900 mm by 1800 mm (~ 35” by 70”) and that the boom arm is exactly have the length of blackboard writing surface and that when the boom assembly is extended outward from the surface/area (1) is remains centered with respect to the writing surface. Therefore, the Examiner concludes that angle A in figure 2 is a 60-degree angle and the



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adjacent sides, one of which is the boom assembly, are each 35 inches (i.e., exactly half the width of the blackboard writing surface indicated by Komori et al.). Thus, Komori teaches the boom assembly having a length of from about 30 to 50 inches, as claimed.

At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have incorporated the boom assembly having a length of from about 30 to 50 inches (as taught by Komori et al.) in the camera system with a boom assembly (disclosed by Ishikawa et al.) for the advantage of *providing a boom assembly that is of an easy configuration for easy movement such that the boom is able to avoid becoming a user's trouble in a time of non-use* (see Effect of the Invention paragraph of Komori et al.).

18. As for **Claim 4**, Ishikawa et al. disclose, as clearly shown in figure 1, wherein the boom assembly (not expressly labeled) includes a wall mount (not expressly labeled; although the boom is clearly shown to be attached to the upper left and upper right walled surfaces of the electronic blackboard 2), a boom (*two* boom arms) extending outwardly from said wall mount (again not expressly labeled) and a camera head (9) adjacent a distal end of said boom arm (clearly shown in figure 1), said camera head (9) supporting said at least one digital camera (9).

19. As for **Claim 12**, Ishikawa et al. disclose, as clearly shown in figure 1, wherein said camera head (9) supports a single digital camera (9).

20. **Claim 5** is rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa Masahito et al. (JP 09-224111 A) in view of Komori Shigehiro et al. (JP 08-108689 A) in further view of Haskin (US 5,790,910).

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NOTE: A computer translation of Ishikawa et al. and Komori et al. will be used in the following rejections. However, for additional support, a human English-language translation for Ishikawa Masahito et al. by provided by Akiko Smith on March 5, 2007 and a human English-language translation for Komori Shigehiro et al. provided by Schreiber Translation in March 2007 are newly attached to this Office Action (see form PTO-892).

21. As for **Claim 5**, Ishikawa discloses a wall mount (as recited above); however, Ishikawa is silent with respect to the structural details of the wall mount. Specifically, Ishikawa is silent with respect to the wall mount being releasably coupled to a wall plate secured to said wall surface.

On the other hand, Haskin also provides a camera system for capturing an image of a target area. Specifically, Haskin teaches, as shown in figure 1, a camera (22) attached to a distal end (28) of a boom assembly (20) mounted, via a wall mount (37), on a wall surface (23). Haskin additionally teaches, as further shown in figure 1, the wall mount (37) being releasably coupled (via screws 34) to a wall plate (38) secured to said wall surface (23).

At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have incorporate the wall mount being releasably coupled to a wall plate secured to said wall surface (as taught by Haskin) in the camera system with boom assembly mounted on a wall surface (as disclosed by Ishikawa) for the advantage of *providing a mounting assembly that is easy to adjust once in place and that permits mounting directly to an electrical junction box* (see Haskin; column 1, lines 14 – 25).

22. **Claims 6 – 8 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa Masahito et al. (JP 09-224111 A) in view of Komori Shigehiro et al. (JP 08-108689 A) in further view of Byrd et al. (US 6,633,328 B1).**

NOTE: A computer translation of Ishikawa et al. and Komori et al. will be used in the following rejections. However, for additional support, a human English-language translation for Ishikawa Masahito et al. by provided by Akiko Smith on March 5, 2007 and a human English-language translation for Komori Shigehiro et al. provided by Schreiber Translation in March 2007 are newly attached to this Office Action (see form PTO-892).

23. As for **Claim 6**, Ishikawa et al. disclose a boom assembly (not expressly labeled) adapted to extend outwardly from a from a generally vertical surface (2), said boom assembly including a wall mount (not expressly labeled; although the boom is clearly shown to be attached to the upper left and upper right walled surfaces of the electronic blackboard 2), a boom (*two boom arms*) extending outwardly from said wall mount (again not expressly labeled) and a camera head (9) adjacent a distal end of said boom arm (clearly shown in figure 1), said camera head (9) supporting at least one digital camera (9); however, Ishikawa et al. do not disclose *wherein said boom assembly is articulated and moveable between an extended operating position and a folded retracted condition*.

In analogous art, Byrd et al. also disclose a camera system for capturing images of a target area using a camera attached to the distal of end of a boom assembly extending outward from a wall surface. Specifically, Byrd et al. teach, as shown in figure 1, a camera system with a digital camera (20) capturing an image of a target area (10), wherein the digital camera is attached to the distal end (14) of a boom assembly (see figures 9 – 11), wherein the boom

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assembly extends outward from a wall surface (134). However, Byrd et al. additionally teach, as shown in figures 9 – 11 and as stated in columns 4 (lines 35 – 45) and 8 (lines 6 – 67), wherein said boom assembly is articulated and moveable between an extended operating position and a folded retracted condition.

At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have included a boom assembly that is articulated and moveable between an extended operating position and a folded retracted condition (as taught by Byrd et al.) in the camera system with boom assembly (disclosed by Ishikawa et al.) for the advantage of *providing 360° image rotation such that a single user may be able to properly orient the camera system and generate understandable video images* (see Byrd et al.; column 2, lines 11 – 35).

24. As for **Claim 7**, Byrd et al. disclose, as shown in figures 1 and 9 – 11 and as stated in columns 4 (lines 35 – 45) and 8 (lines 6 – 67), wherein said boom assembly includes a pair of hinges at spaced locations along said boom to enable said boom to fold over itself.

25. As for **Claim 8**, Byrd et al. disclose, as shown in figures 1 and 9 – 11 and as stated in columns 4 (lines 35 – 45) and 8 (lines 6 – 67), wherein each of said hinges includes a locking mechanism to retain said boom assembly in said extended operating position (A “slip ring”, which Byrd et al. provide, is a locking mechanism.).

26. As for **Claim 13**, Ishikawa et al. disclose a boom assembly (not expressly labeled) adapted to extend outwardly from a from a generally vertical surface (2), said boom assembly including a wall mount (not expressly labeled; although the boom is clearly shown to be attached to the upper left and upper right walled surfaces of the electronic blackboard 2), a boom (*two* boom arms) extending outwardly from said wall mount (again not expressly labeled) and a

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camera head (9) adjacent a distal end of said boom arm (clearly shown in figure 1), said camera head (9) supporting at least one digital camera (9); however, Ishikawa et al. do not disclose *wherein said digital camera is pivotally mounted on said camera head and is moveable about an arc to capture images of distinct sections of said writing surface, images of adjacent distinct sections of said writing surface overlapping.*

In analogous art, Byrd et al. also disclose a camera system for capturing images of a target area using a camera attached to the distal of end of a boom assembly extending outward from a wall surface. Specifically, Byrd et al. teach, as shown in figure 1, a camera system with a digital camera (20) capturing an image of a target area (10), wherein the digital camera is attached to the distal end (14) of a boom assembly (see figures 9 – 11), wherein the boom assembly extends outward from a wall surface (134). However, Byrd et al. additionally teach, as shown in figures 9 – 11 and as stated in columns 4 (lines 35 – 45) and 8 (lines 6 – 67), wherein said digital camera is pivotally mounted on said camera head and is moveable about an arc to capture images of distinct sections of said writing surface, images of adjacent distinct sections of said writing surface overlapping (The 360° camera movement of Byrd et al. corresponds to the claimed “arc”).

At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have included wherein said digital camera is pivotally mounted on said camera head and is moveable about an arc to capture images of distinct sections of said writing surface, images of adjacent distinct sections of said writing surface overlapping. (as taught by Byrd et al.) in the camera system with boom assembly (disclosed by Ishikawa et al.) for the advantage of

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*providing 360° image rotation such that a single user may be able to properly orient the camera system and generate understandable video images (see Byrd et al.; column 2, lines 11 – 35).*

27. **Claim 9 – 11** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ishikawa Masahito et al. (JP 09-224111 A) in view of Komori Shigehiro et al. (JP 08-108689 A) in further view of Saund et al. (US 6,570,612 B1).**

NOTE: A computer translation of Ishikawa et al. and Komori et al. will be used in the following rejections. However, for additional support, a human English-language translation for Ishikawa Masahito et al. by provided by Akiko Smith on March 5, 2007 and a human English-language translation for Komori Shigehiro et al. provided by Schreiber Translation in March 2007 are newly attached to this Office Action (see form PTO-892).

28. As for **Claim 9**, Ishikawa et al. disclose a boom assembly (not expressly labeled) adapted to extend outwardly from a from a generally vertical surface (2), said boom assembly including a wall mount (not expressly labeled; although the boom is clearly shown to be attached to the upper left and upper right walled surfaces of the electronic blackboard 2), a boom (*two boom arms*) extending outwardly from said wall mount (again not expressly labeled) and a camera head (9) adjacent a distal end of said boom arm (clearly shown in figure 1), said camera head (9) supporting at least one digital camera (9); however, Ishikawa et al. do not disclose *wherein said camera head supports a plurality of digital cameras, each of said digital cameras having a field of view that encompasses a distinct section of said writing surface, fields of view of adjacent digital cameras overlapping slightly.*

In analogous art, Saund et al. also disclose a camera system for capturing images of a target area using a camera attached to the distal of end of a boom assembly extending outward from a wall surface. Specifically, Saund et al. teach, as shown in figures 1, 3, and 4 and as stated in column 3 (lines 10 – 49), a camera system with a camera head (54) capturing an image of a target area (52), wherein the camera head supports a plurality of digital cameras (“array of fixed or rotatable cameras”), each of said digital cameras (54) having a field of view that encompasses a distinct section of said writing surface (see figure 3), fields of view of adjacent digital cameras overlapping slightly (see figure 4).

At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have included a camera head that supports a plurality of digital cameras, each of said digital cameras having a field of view that encompasses a distinct section of said writing surface, fields of view of adjacent digital cameras overlapping slightly (as taught by Saund et al.) in the camera system with boom assembly (disclosed by Ishikawa et al.) for the advantage of *providing an image of a board surface that eliminates the effects of variable illumination and artifacts* (see Saund et al.; column 1, line 65 – column 2, line 2).

29. As for **Claim 10**, Saund et al. disclose, as shown in figures 1, 3, and 4 and as stated in column 3 (lines 10 – 49), wherein said camera head supports a pair of digital cameras. The Examiner submits the claim language such that a pair of digital cameras corresponds to at least two digital cameras.

30. As for **Claim 11**, Saund et al. disclose, as shown in figures 1, 3, and 4 and as stated in column 3 (lines 10 – 49), wherein said camera head supports three digital cameras. The

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Examiner submits the claim language such that a pair of digital cameras corresponds to at least two digital cameras.

31. **Claims 14 – 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa Masahito et al. (JP 09-224111 A) in view of Komori Shigehiro et al. (JP 08-108689 A) in further view of Kuno (US 6,567,121 B1).**

NOTE: A computer translation of Ishikawa et al. and Komori et al. will be used in the following rejections. However, for additional support, a human English-language translation for Ishikawa Masahito et al. by provided by Akiko Smith on March 5, 2007 and a human English-language translation for Komori Shigehiro et al. provided by Schreiber Translation in March 2007 are newly attached to this Office Action (see form PTO-892).

32. As for **Claim 14**, Ishikawa et al. disclose, as shown in figure 1 and as indicated in paragraphs 18 and 19, an output unit (21) is provided for outputting a “high-definition electronic filing document”; however, Ishikawa et al. is silent with respect to *said controller is coupled to a computer network and uses resources of said computer network*.

On the other hand, Kuno analogously provide a camera for capturing an image of a target area and output unit for outputting the image. More specifically, Kuno teaches, as shown in figures 1, 10, and 12, a camera (100) and a output unit (control unit/cpu 1), wherein Kuno additionally teaches, in columns 3 (lines 17 – 29) and 8 (lines 11 – 40), *said controller is coupled to a computer network and uses resources of said computer network*.

At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have included functionality for *said controller is coupled to a computer network*



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*and uses resources of said computer network* (as taught by Kuno) in the camera-based system (disclosed by Ishikawa et al.) for the advantage of user enjoyment/observation of live images of various locations at remote locations (see Kuno; column 1, lines 15 – 20).

33. As for **Claim 15**, Kuno teaches, as stated in columns 3 (lines 17 – 29) and 8 (lines 11 – 40), wherein said controller uses storage, printing, distribution and/or remote viewing resources of said computer network.

34. As for **Claim 16**, Ishikawa et al. disclose, as shown in figure 1 and as indicated in paragraphs 18 and 19, an output unit (21) is provided for outputting a “high-definition electronic filing document”; however, Ishikawa et al. is silent with respect to *said controller has web server capabilities and is coupled to a distributed computer network to allow captured images to be accessed by a user via web browser*.

On the other hand, Kuno analogously provide a camera for capturing an image of a target area and output unit for outputting the image. More specifically, Kuno teaches, as shown in figures 1, 10, and 12, a camera (100) and a output unit (control unit/cpu 1), wherein Kuno additionally teaches, in columns 3 (lines 17 – 29) and 8 (lines 11 – 40), *said controller has web server capabilities and is coupled to a distributed computer network to allow captured images to be accessed by a user via web browser*.

At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have included functionality for *said controller has web server capabilities and is coupled to a distributed computer network to allow captured images to be accessed by a user via web browser* (as taught by Kuno) in the camera-based system (disclosed by Ishikawa et al.)

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for the advantage of user enjoyment/observation of live images of various locations at remote locations (see Kuno; column 1, lines 15 – 20).

35. As for **Claim 17**, Kuno additionally teaches in column 3 (lines 17 – 29) and in figure 1, wherein said controller (control unit/cpu 1) is a dedicated appliance (Kuno recites that the control unit/cpu 1 in conjunction with the external storage device serves a camera server, which is a dedicated appliance).

36. As for **Claim 18**, Kuno additionally teaches in column 3 (lines 17 – 29) and in figure 1, the control unit/cpu 1 in conjunction with the external storage device serves a camera server; however, Kuno does not explicitly recite wherein the camera server is comprises a personal computer.

However, **Official Notice** (MPEP §.2144.03) is taken that both the concepts and advantages of incorporating a *server* in a personal computer (PC) are well known and expected in the art. At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have incorporated the server of Kuno in a PC for the *portability* advantages.

37. As for **Claim 19**, Kuno additionally teaches, as stated in column 3 (lines 17 – 29), forwarding said electronic image to a secondary location for storage (external storage device 6).

38. As for **Claim 20**, Kuno additionally teaches in column 3 (lines 17 – 29) and in figure 1, that the control unit/cpu 1 in conjunction with the external storage device serves as a camera server; however, Kuno does not explicitly recite wherein the camera server is provided with a display to present the digital image.

However, **Official Notice** (MPEP § 2144.03) is taken that both the concepts and advantages of incorporating a *display to present the digital image* in a server are well known and

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expected in the art. At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have incorporated a display to present the digital image in the server of Kuno for the advantage of *real-time image file management and editing capabilities*.

39. As for **Claim 21**, Ishikawa et al. disclose processing said image to yield high contrast pen strokes (“pens 3, 4, and 5 of three colors of red, green, and blue”) on a white or empty background (see Abstract).

40. As for **Claim 22**, Ishikawa et al. clearly disclose, in paragraph 11, wherein said high contrast pen strokes are in color (“pens 3, 4, and 5 of three colors of red, green, and blue”).

41. **Claims 23 – 26, 28 – 31, 39, 42, 44 – 49, 51, 52, 54, 55, 60 – 64, 66, 67, 69, 70, 72, 73, 75, 76, 78 – 85, and 93** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ishikawa Masahito et al. (JP 09-224111 A) in view of Kuno (US 6,567,121 B1)**.

NOTE: A computer translation of Ishikawa et al. will be used in the following rejections. However, for additional support, a human English-language translation by provided by Akiko Smith on March 5, 2007 is newly attached to this Office Action (see form PTO-892).

42. For **Claim 23**, Ishikawa et al. disclose, as shown in figure 1 and as indicated in paragraphs 11 – 20, a camera-based system for capturing images of a writing surface (2) on which pen strokes of one or more color are made (“red”, “green”, and “blue”) comprising:

a boom assembly (not expressly labeled) adapted to extend outwardly from a from a generally vertical surface (2);

at least one digital camera (“color camera 9”) supported by said camera head at a location spaced from the plane of said vertical surface (“field 2”; seen clearly from figure 1), said at least

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one digital camera (9) being oriented so that the field of view thereof encompasses said writing surface (2); and

a controller (output unit 21) being in communication with said at least one digital camera (9), said controller (21) conditioning said at least one digital camera to acquire an image of said writing surface (2), said controller (21) receiving image data from said at least one digital camera (9) and processing said image data to form a digital image of said writing surface (2) including all visible high contrast pen strokes irrespective of color on a white or empty background (see Response to Arguments above; also see human English-language translation of Ishikawa et al.; paragraphs 0012 – 0014).

Finally, Ishikawa et al. disclose, as shown in figure 1 and as indicated in paragraphs 18 and 19, an output unit (21) is provided for outputting a “high-definition electronic filing document”; however, Ishikawa et al. is silent with respect to *said digital image accessible to a user through a web client application*.

On the other hand, Kuno analogously provide a camera for capturing an image of a target area and output unit for outputting the image. More specifically, Kuno teaches, as shown in figures 1, 10, and 12, a camera (100) and a output unit (control unit/cpu 1), wherein Kuno additionally teaches, in columns 3 (lines 17 – 29) and 8 (lines 11 – 40), *said digital image accessible to a user through a web client application*.

At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have included functionality for *said digital image accessible to a user through a web client application* (as taught by Kuno) in the camera-based system (disclosed by Ishikawa et

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al.) for the advantage of user enjoyment/observation of live images of various locations at remote locations (see Kuno; column 1, lines 15 – 20).

43. As for **Claim 24**, Ishikawa et al. disclose, as shown in figure 1 and as indicated in paragraphs 18 and 19, an output unit (21) is provided for outputting a “high-definition electronic filing document”. The Examiner considers the Ishikawa et al. output to correspond to the claimed automatic publishing of the digital image.

44. As for **Claim 25**, Kuno additionally teaches, as stated in column 3 (lines 17 – 29), forwarding said electronic image to a secondary location for storage (external storage device 6).

45. As for **Claim 26**, Kuno additionally teaches, as stated in column 5 (lines 52 – 57), wherein said controller processes image data received from said at least one digital camera to reduce the size of said digital image (e.g., compression).

46. As for **Claim 28**, Ishikawa et al. disclose, as shown in figure 1 and as indicated in paragraphs 18 and 19, an output unit (21) is provided for outputting a “high-definition electronic filing document”. The Examiner considers the Ishikawa et al. output to correspond to the claimed saves the digital image in a selected format.

47. As for **Claim 29**, while Ishikawa et al. disclose, as shown in figure 1 and as indicated in paragraphs 18 and 19, an output unit (21) is provided for outputting a “high-definition electronic filing document”; Ishikawa et al. is silent with respect to JPEG format.

However, **Official Notice** (MPEP § 2144.03) is taken that both the concepts and advantages of saving digital images in JPEG format are well known and expected in the art. At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have saved the “high-definition electronic filing document” images of Ishikawa et al. as JPEG

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images for the advantage of *providing a platform-independent, small sized, image file format that allows user-control over file size and image quality.*

48. As for **Claim 30**, Kuno additionally teaches in column 3 (lines 17 – 29) and in figure 1, that the control unit/cpu 1 in conjunction with the external storage device serves as a camera server; however, Kuno does not explicitly recite wherein the camera server is provided with a display to present the digital image.

49. As for **Claim 31**, Ishikawa et al. disclose, as clearly shown in figure 1, wherein the boom assembly (not expressly labeled) includes a wall mount (not expressly labeled; although the boom is clearly shown to be attached to the upper left and upper right walled surfaces of the electronic blackboard 2), a boom (*two boom arms*) extending outwardly from said wall mount (again not expressly labeled) and a camera head (9) adjacent a distal end of said boom arm (clearly shown in figure 1), said camera head (9) supporting said at least one digital camera (9).

50. As for **Claim 39**, Ishikawa et al. disclose, as clearly shown in figure 1, wherein said camera head (9) supports a single digital camera (9).

51. For **Claim 42**, Ishikawa et al. disclose, as shown in figure 1 and as indicated in paragraphs 11 – 20, a camera-based system for capturing images of a target area (2) comprising:

a board (2) having a writing surface on which information is to be recorded using one or more different colored pen tools (“red”, “green”, and “blue”);

a boom assembly (clearly shown in figure 1; although not expressly labeled) positioned above said board and extending outwardly from said board in a generally horizontal disposition (As clearly shown in figure 1, the camera 9 is positioned via two support arms, not labeled, that extend *horizontally* and *perpendicularly* from the plane of the target area 2);

at least one digital camera (“color camera 9”) mounted on said boom assembly at a location spaced from the plane of said target area (“field 2”; seen clearly from figure 1), said at least one digital camera (9) being oriented so that the field of view thereof encompasses said writing surface (2); and

a controller (output unit 21) being in communication with said at least one digital camera (9), said controller (21) being responsive to user input (not explicitly recited; however, all electronic devices inherently require at least some operator input, such as powering the device on/off) and conditioning at least one digital camera (9) to acquire an image of said writing surface (2), said image acquired by said at least one digital camera (9) being conveyed to said controller and processed to form an electronic image of said writing surface (paragraphs 18 and 19) including all visible pen strokes irrespective of the pen tool used to make said pen strokes (see Response to Arguments above; also see human English-language translation of Ishikawa et al.; paragraphs 0012 – 0014).

Finally, Ishikawa et al. disclose, as shown in figure 1 and as indicated in paragraphs 18 and 19, an output unit (21) is provided for outputting a “high-definition electronic filing document”; however, Ishikawa et al. is silent with respect to (a) *said controller having Internet server capabilities and said electronic image being published automatically to allow said electronic image to be accessed by a user through a web client application* and (b) *wherein the board is mounted on a wall*.

In regards to (a), Kuno analogously provide a camera for capturing an image of a target area and output unit for outputting the image. More specifically, Kuno teaches, as shown in figures 1, 10, and 12, a camera (100) and a output unit (control unit/cpu 1), wherein Kuno

additionally teaches, in columns 3 (lines 17 – 29) and 8 (lines 11 – 40), *said controller having Internet server capabilities and said electronic image being published automatically to allow said electronic image to be accessed by a user through a web client application.*

At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have included functionality for *said controller having Internet server capabilities and said electronic image being published automatically to allow said electronic image to be accessed by a user through a web client application* (as taught by Kuno) in the camera-based system (disclosed by Ishikawa et al.) for the advantage of user enjoyment/observation of live images of various locations at remote locations (see Kuno; column 1, lines 15 – 20).

In regards to (b), **Official Notice** (MPEP § 2144.03) is taken that both the concepts and advantages of mounting a writing surface (e.g., whiteboard or blackboard) on a wall are well known and expected in the art. At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have mounted the writing surface of Ishikawa et al. on a wall such that the boom assembly extends horizontally outward from the board mounted on the wall for the advantage of *reducing the effects of variable illumination and shadow casting on the writing surface of the board.*

52. As for **Claim 44**, Kuno additionally teaches, as stated in column 3 (lines 17 – 29), forwarding said electronic image to a secondary location for storage (external storage device 6).

53. As for **Claim 45**, Kuno additionally teaches, as stated in column 5 (lines 52 – 57), wherein said controller processes image data received from said at least one digital camera to reduce the size of said digital image (e.g., compression).



54. As for **Claim 46**, Ishikawa et al. disclose processing said image to yield high contrast pen strokes (“pens 3, 4, and 5 of three colors of red, green, and blue”) on a white or empty background (see Abstract).

55. As for **Claim 47**, Ishikawa et al. disclose, as shown in figure 1 and as indicated in paragraphs 18 and 19, an output unit (21) is provided for outputting a “high-definition electronic filing document”; thus, Ishikawa et al. disclose wherein said controller saves said electronic image in a selected format.

56. As for **Claim 48**, Kuno additionally teaches in column 3 (lines 17 – 29) and in figure 1, that the control unit/cpu 1 in conjunction with the external storage device serves as a camera server; however, Kuno does not explicitly recite wherein the camera server is provided with a display to present the digital image.

However, Official Notice (MPEP § 2144.03) is taken that both the concepts and advantages of incorporating a *display to present the digital image* in a server are well known and expected in the art. At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have incorporated a display to present the digital image in the server of Kuno for the advantage of *real-time image file management and editing capabilities*.

57. As for **Claim 49**, Ishikawa et al. disclose, as clearly shown in figure 1, wherein the boom assembly (not expressly labeled) includes a wall mount (not expressly labeled; although the boom is clearly shown to be attached to the upper left and upper right walled surfaces of the electronic blackboard 2), a boom (*two boom arms*) extending outwardly from said wall mount (again not expressly labeled) and a camera head (9) adjacent a distal end of said boom arm (clearly shown in figure 1), said camera head (9) supporting said at least one digital camera (9).

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58. For **Claim 51**, Ishikawa et al. disclose, as shown in figure 1 and as indicated in paragraphs 11 – 20, an image publication and distribution method comprising the steps of:

acquiring an image of a writing surface (“field 2”) that includes all visible information recorded (“alphabetic characters” 6 and “graphic” 8) on said writing surface (2) made via one or more different colored pen tools (“red”, “green”, and “blue”) using an optical recording device (“color camera 9”), said optical recording device (2) being mounted on a generally horizontal boom positioned above said target area (As clearly shown in figure 1, the camera 9 is positioned via two support arms, not labeled, that extend *horizontally* and *perpendicularly* from the plane of the target area 2);

processing said image to yield a digital output image comprising high contrast pen strokes (“pens 3, 4, and 5 of three colors of red, green, and blue”) on a white or empty background (see Abstract) irrespective of the pen tool used to make said pen strokes (see Response to Arguments above; also see human English-language translation of Ishikawa et al.; paragraphs 0012 – 0014).

Finally, Ishikawa et al. disclose, as shown in figure 1 and as indicated in paragraphs 18 and 19, an output unit (21) is provided for outputting a “high-definition electronic filing document”; however, Ishikawa et al. is silent with respect to *posting said output image to a site in response to user input to allow said output image to be accessed by a user through a client browser application.*

On the other hand, Kuno analogously provide a camera for capturing an image of a target area and output unit for outputting the image. More specifically, Kuno teaches, as shown in figures 1, 10, and 12, a camera (100) and a output unit (control unit/cpu 1), wherein Kuno

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additionally teaches, in column 8 (lines 11 – 40), *posting said output image to a site in response to user input to allow said output image to be accessed by a user through a client browser application*, as claimed.

At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have included functionality for *posting an image to a site in response to user input to allow said output image to be accessed by a user through a client browser application* (as taught by Kuno) in the image publication method (disclosed by Ishikawa et al.) for the advantage of user enjoyment/observation of live images of various locations at remote locations (see Kuno; column 1, lines 15 – 20).

59. As for **Claim 52**, Kuno additionally teaches, as stated in column 3 (lines 17 – 29), forwarding said digital output image to a secondary location for storage (external storage device 6).

60. As for **Claim 54**, Kuno additionally teaches, as stated in column 8 (lines 37 – 40), presenting said digital output image on a display device while said digital output image is being posted.

61. As for **Claim 55**, Ishikawa et al. clearly disclose, in paragraph 11, wherein said high contrast pen strokes are in color (“pens 3, 4, and 5 of three colors of red, green, and blue”).

62. As for **Claim 60**, Ishikawa et al. disclose, as shown in figure 1 and as indicated in paragraphs 18 and 19, an output unit (21) is provided for outputting a “high-definition electronic filing document”; however, Ishikawa et al. is silent with respect to *said controller is coupled to a computer network and uses resources of said computer network*.

On the other hand, Kuno analogously provide a camera for capturing an image of a target area and output unit for outputting the image. More specifically, Kuno teaches, as shown in figures 1, 10, and 12, a camera (100) and a output unit (control unit/cpu 1), wherein Kuno additionally teaches, in columns 3 (lines 17 – 29) and 8 (lines 11 – 40), *said controller is coupled to a computer network and uses resources of said computer network.*

At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have included functionality for *said controller is coupled to a computer network and uses resources of said computer network* (as taught by Kuno) in the camera-based system (disclosed by Ishikawa et al.) for the advantage of user enjoyment/observation of live images of various locations at remote locations (see Kuno; column 1, lines 15 – 20).

63. As for **Claim 61**, Ishikawa et al. disclose, as shown in figure 1 and as indicated in paragraphs 18 and 19, an output unit (21) is provided for outputting a “high-definition electronic filing document”; however, Ishikawa et al. is silent with respect to *said controller has web server capabilities and is coupled to a distributed computer network to allow captured images to be accessed by a user via web browser.*

On the other hand, Kuno analogously provide a camera for capturing an image of a target area and output unit for outputting the image. More specifically, Kuno teaches, as shown in figures 1, 10, and 12, a camera (100) and a output unit (control unit/cpu 1), wherein Kuno additionally teaches, in columns 3 (lines 17 – 29) and 8 (lines 11 – 40), *said controller has web server capabilities and is coupled to a distributed computer network to allow digital output images to be accessed by a user via web browser.*

At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have included functionality for *said controller has web server capabilities and is coupled to a distributed computer network to allow digital output images to be accessed by a user via web browser* (as taught by Kuno) in the camera-based system (disclosed by Ishikawa et al.) for the advantage of user enjoyment/observation of live images of various locations at remote locations (see Kuno; column 1, lines 15 – 20).

64. For **Claim 62**, Ishikawa et al. disclose, as shown in figure 1 and as indicated in paragraphs 11 – 20, a system for capturing an image comprising:

an arm (clearly shown in figure 1; although not expressly labeled) configured to extend outwardly from a generally vertical surface (“field 2”);

an imaging device (“color camera 9”) mounted adjacent a distal end of said arm (@ vertex of both support arms) at a location laterally spaced from said surface (again, clearly shown in figure 1), said imaging device (9) being operable to capture an image of a write board mounted on said surface below said arm (see paragraphs 11 and 12); and

a controller (“output unit 21”) in communication with said imaging device (9), said controller (21) conditioning said imaging device (9) to acquire an image of said write board (2) in response to operator input (not explicitly recited; however, all electronic devices inherently require at least some operator input, such as powering the device on/off) and processing the acquired at least one image to yield a digital output image, said digital output image comprising all visible pen strokes on said write board (2) irrespective of the pen tool used to make said pen strokes (see Response to Arguments above; also see human English-language translation of Ishikawa et al.; paragraphs 0012 – 0014).

Finally, Ishikawa et al. disclose, as shown in figure 1 and as indicated in paragraphs 18 and 19, an output unit (21) is provided for outputting a “high-definition electronic filing document”; however, Ishikawa et al. is silent with respect to *said controller further posting said acquired image to a site accessible to a user through a web client application in response to operator input.*

On the other hand, Kuno analogously provide a camera for capturing an image of a target area and output unit for outputting the image. More specifically, Kuno teaches, as shown in figures 1, 10, and 12, a camera (100) and a output unit (control unit/cpu 1), wherein Kuno additionally teaches, in columns 3 (lines 17 – 29) and 8 (lines 11 – 40), *said controller further posting said acquired image to a site accessible to a user through a web client application in response to operator input.*

At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have included functionality for *said controller further posting said acquired image to a site accessible to a user through a web client application in response to operator input* (as taught by Kuno) in the camera-based system (disclosed by Ishikawa et al.) for the advantage of user enjoyment/observation of live images of various locations at remote locations, (see Kuno; column 1, lines 15 – 20).

65. As for **Claim 63**, Kuno additionally teaches in column 3 (lines 17 – 29) and in figure 1, that the control unit/cpu 1 in conjunction with the external storage device serves as a camera server. Furthermore, Kuno teaches, column 5 (line 39) and as shown in figure 7, that the camera server in figure 1 is given a URL (www.foo.co.jp). Therefore, Kuno teaches wherein said controller (1) includes a web server having a dedicated web address.

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66. As for **Claim 64**, Ishikawa et al. show an arm (clearly shown in figure 1; although not expressly labeled) configured to extend outwardly from a generally vertical surface (“field 2”). Furthermore, Ishikawa et al. clearly show wherein said arm (again not expressly labeled) is coupled to a mount (clearly shown in figure 1; although not expressly labeled) that is configured to be secured to said surface (2).

67. As for **Claim 66**, Ishikawa et al. disclose that the camera (9) yields high-definition images (see paragraph 18). A digital camera is required for high-definition images. Accordingly, the color camera (9) of Ishikawa et al. is a digital camera.

68. As for **Claim 67**, Kuno additionally teaches in column 3 (lines 17 – 29) and in figure 1, that the control unit/cpu 1 controls camera image taking operations and a camera server operation; however, Kuno does not explicitly recite buttons to operate the camera to acquire images and post images to the site.

However, **Official Notice** (MPEP § 2144.03) is taken that both the concepts and advantages of providing a camera system with a main controlling unit having a plurality buttons for acquiring images and performing operations on acquired images are well known and expected in the art. At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have provided in Kuno’s camera system (figure 1) a first button actuable by an operator to cause said controller to condition said imaging device to acquire an image, and a second button actuable by an operator to cause said controller to post said acquired image to said site for the advantage of providing *real-time image file management and editing capabilities*.

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69. As for **Claim 69**, Ishikawa et al. disclose, as shown in figure 1 and as indicated in paragraphs 18 and 19, an output unit (21) is provided for outputting a “high-definition electronic filing document”; however, Ishikawa et al. is silent with respect to *posting said image to a site in response to user input to allow said image to be accessed by a user through a client browser application*.

On the other hand, Kuno analogously provide a camera for capturing an image of a target area and output unit for outputting the image. More specifically, Kuno teaches, as shown in figures 1, 10, and 12, a camera (100) and a output unit (control unit/cpu 1), wherein Kuno additionally teaches, in column 8 (lines 11 – 40), *posting said image to a site in response to user input to allow said image to be accessed by a user through a client browser application*, as claimed.

At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have included functionality for *posting an image to a site in response to user input to allow said image to be accessed by a user through a client browser application* (as taught by Kuno) in the image publication method (disclosed by Ishikawa et al.) for the advantage of user enjoyment/observation of live images of various locations at remote locations (see Kuno; column 1, lines 15 – 20).

70. As for **Claim 70**, Kuno additionally teaches in column 3 (lines 17 – 29) and in figure 1, that the control unit/cpu 1 in conjunction with the external storage device serves as a camera server. Furthermore, Kuno teaches, column 5 (line 39) and as shown in figure 7, that the camera server in figure 1 is given a URL (www.foo.co.jp). Therefore, Kuno teaches wherein said controller (1) includes a web server having a dedicated web address.



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71. As for **Claim 72**, Kuno additionally teaches in column 3 (lines 17 – 29) and in figure 1, that the control unit/cpu 1 controls camera image taking operations and a camera server operation; however, Kuno does not explicitly recite buttons to operate the camera to acquire images and post images to the site.

However, **Official Notice** (MPEP § 2144.03) is taken that both the concepts and advantages of providing a camera system with a main controlling unit having a plurality buttons for acquiring images and performing operations on acquired images are well known and expected in the art. At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have provided in Kuno's camera system (figure 1) a first button actuable by an operator to cause said controller to condition said imaging device to acquire an image, and a second button actuable by an operator to cause said controller to post said acquired image to said site for the advantage of providing *real-time image file management and editing capabilities*.

72. As for **Claim 73**, as indicated below (see Official Notice of Claim 68), the Examiner submits that it would have obvious to one with ordinary skill in the art to have mounted the controller on the wall surface/writing surface of Ishikawa et al. for the advantage of *providing a controller that is of an easy configuration such that the controller is able to avoid becoming a user's trouble in a time of non-use*.

73. As for **Claim 75**, Ishikawa et al. disclose, as shown in figure 1 and as indicated in paragraphs 18 and 19, an output unit (21) is provided for outputting a "high-definition electronic filing document"; however, Ishikawa et al. is silent with respect to *posting said image to a site in*

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*response to user input to allow said image to be accessed by a user through a client browser application.*

On the other hand, Kuno analogously provide a camera for capturing an image of a target area and output unit for outputting the image. More specifically, Kuno teaches, as shown in figures 1, 10, and 12, a camera (100) and a output unit (control unit/cpu 1), wherein Kuno additionally teaches, in column 8 (lines 11 – 40), *posting said image to a site in response to user input to allow said image to be accessed by a user through a client browser application*, as claimed.

At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have included functionality for *posting an image to a site in response to user input to allow said image to be accessed by a user through a client browser application* (as taught by Kuno) in the image publication method (disclosed by Ishikawa et al.) for the advantage of user enjoyment/observation of live images of various locations at remote locations (see Kuno; column 1, lines 15 – 20).

74. As for **Claim 76**, Kuno additionally teaches in column 3 (lines 17 – 29) and in figure 1, that the control unit/cpu 1 in conjunction with the external storage device serves as a camera server. Furthermore, Kuno teaches, column 5 (line 39) and as shown in figure 7, that the camera server in figure 1 is given a URL (www.foo.co.jp). Therefore, Kuno teaches wherein said controller (1) includes a web server having a dedicated web address.

75. As for **Claim 78**, Kuno additionally teaches in column 3 (lines 17 – 29) and in figure 1, that the control unit/cpu 1 controls camera image taking operations and a camera server

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operation; however, Kuno does not explicitly recite buttons to operate the camera to acquire images and post images to the site.

However, **Official Notice** (MPEP § 2144.03) is taken that both the concepts and advantages of providing a camera system with a main controlling unit having a plurality buttons for acquiring images and performing operations on acquired images are well known and expected in the art. At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have provided in Kuno's camera system (figure 1) a first button actuable by an operator to cause said controller to condition said imaging device to acquire an image, and a second button actuable by an operator to cause said controller to post said acquired image to said site for the advantage of providing *real-time image file management and editing capabilities*.

76. For **Claim 79**, Ishikawa et al. disclose, as shown in figure 1 and as indicated in paragraphs 11 – 20, a camera-based system for capturing images of a writing surface (2) comprising:

a generally horizontally extending boom assembly (clearly shown in figure 1; although not expressly labeled), said boom assembly being positioned above said writing surface (As clearly shown in figure 1, the camera 9 is positioned via two support arms, not labeled, that extend *horizontally* and *perpendicularly* from the plane of the writing surface (2);

at least one digital camera (“color camera 9”) mounted on said boom assembly at a location spaced from the plane of said target area (“field 2”; seen clearly from figure 1), said at least one digital camera (9) being oriented so that the field of view thereof encompasses said writing surface (2); and

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a controller (output unit 21) being in communication with said at least one digital camera (9), said controller (21) receiving image data from said at least one digital camera (9) and processing said image data to form a digital output image of said writing surface (2) including all visible high contrast pen strokes (“pens 3, 4, and 5 of three colors of red, green, and blue”) irrespective of color (see Response to Arguments above; also see human English-language translation of Ishikawa et al.; paragraphs 0012 – 0014) on a white or empty background (see Abstract),

Finally, Ishikawa et al. disclose, as shown in figure 1 and as indicated in paragraphs 18 and 19, an output unit (21) is provided for outputting a “high-definition electronic filing document”; however, Ishikawa et al. is silent with respect to *said controller having Internet server capabilities and being coupled to a distributed computer network to allow said digital image to be accessed by a user through an Internet browser.*

On the other hand, Kuno analogously provide a camera for capturing an image of a target area and output unit for outputting the image. More specifically, Kuno teaches, as shown in figures 1, 10, and 12, a camera (100) and a output unit (control unit/cpu 1), wherein Kuno additionally teaches, in columns 3 (lines 17 – 29) and 8 (lines 11 – 40), *said controller having Internet server capabilities and being coupled to a distributed computer network to allow said digital image to be accessed by a user through an Internet browser.*

At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have included functionality for *said controller having Internet server capabilities and being coupled to a distributed computer network to allow said digital image to be accessed by a user through an Internet browser* (as taught by Kuno) in the camera-based

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system (disclosed by Ishikawa et al.) for the advantage of user enjoyment/observation of live images of various locations at remote locations (see Kuno; column 1, lines 15 – 20).

77. As for **Claim 80**, Kuno additionally teaches in column 3 (lines 17 – 29) and in figure 1, wherein said controller (control unit/cpu 1) is a dedicated appliance (Kuno recites that the control unit/cpu 1 in conjunction with the external storage device serves a camera server, which is a dedicated appliance).

78. As for **Claim 81**, Kuno additionally teaches in column 3 (lines 17 – 29) and in figure 1, the control unit/cpu 1 in conjunction with the external storage device serves a camera server; however, Kuno does not explicitly recite wherein the camera server is comprises a personal computer.

However, **Official Notice** (MPEP § 2144.03) is taken that both the concepts and advantages of incorporating a *server* in a personal computer (PC) are well known and expected in the art. At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have incorporated the server of Kuno in a PC for the *portability* advantages.

79. As for **Claim 82**, Kuno additionally teaches in column 3 (lines 17 – 29), wherein said controller (control unit/cpu 1) sends said digital image to a designated secondary storage location (PC 1101) in said distributed computer network (Internet). Kuno shows in figure 12 a user utilizing a PC (1101) with a connection to the Internet for the purpose of downloading images to the PC (1101) through a client browser program (see column 8, lines 11 – 40).

80. As for **Claim 83**, Kuno additionally teaches in column 3 (lines 17 – 29) and in figure 1, that the control unit/cpu 1 in conjunction with the external storage device serves as a camera

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server; however, Kuno does not explicitly recite wherein the camera server is provided with a display to present the digital image.

However, Official Notice (MPEP § 2144.03) is taken that both the concepts and advantages of incorporating a *display to present the digital image* in a server are well known and expected in the art. At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have incorporated a display to present the digital image in the server of Kuno for the advantage of *real-time image file management and editing capabilities*.

81. As for **Claim 84**, Ishikawa et al. clearly disclose, in paragraph 11, wherein said high contrast pen strokes are in color (“pens 3, 4, and 5 of three colors of red, green, and blue”).

82. For **Claim 85**, Ishikawa et al. disclose, as shown in figure 1 and as indicated in paragraphs 11 – 20, a camera-based system for capturing images of a writing surface (2) comprising:

a boom assembly (not expressly labeled) adapted to extend outwardly from a from a generally vertical surface (2), said boom assembly including a wall mount (not expressly labeled; although the boom is clearly shown to be attached to the upper left and upper right walled surfaces of the electronic blackboard 2), a boom (*two* boom arms) extending outwardly from said wall mount (again not expressly labeled) and a camera head (9) adjacent a distal end of said boom arm (clearly shown in figure 1), said camera head (9) supporting at least one digital camera (9);

at least one digital camera (“color camera 9”) supported by said camera head at a location spaced from the plane of said vertical surface (“field 2”; seen clearly from figure 1), said at least

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one digital camera (9) being oriented so that the field of view thereof encompasses said writing surface (2); and

a controller (output unit 21) being in communication with said at least one digital camera (9), said controller (21) conditioning said at least one digital camera to acquire an image of said target area (2), said controller (21) receiving image data from said at least one digital camera (9) and processing said image data to form a digital output image of said writing surface (2), comprising all visible pen strokes on said writing surface (2) irrespective of the pen tool used to make said pen strokes (see Response to Arguments above; also see human English-language translation of Ishikawa et al.; paragraphs 0012 – 0014).

Finally, Ishikawa et al. disclose, as shown in figure 1 and as indicated in paragraphs 18 and 19, an output unit (21) is provided for outputting a “high-definition electronic filing document”; however, Ishikawa et al. is silent with respect to *said digital output image accessible to a user through a web client application*.

On the other hand, Kuno analogously provide a camera for capturing an image of a target area and output unit for outputting the image. More specifically, Kuno teaches, as shown in figures 1, 10, and 12, a camera (100) and a output unit (control unit/cpu 1), wherein Kuno additionally teaches, in columns 3 (lines 17 – 29) and 8 (lines 11 – 40), *said digital output image accessible to a user through a web client application*.

At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have included functionality for *said digital image accessible to a user through a web client application* (as taught by Kuno) in the camera-based system (disclosed by Ishikawa et

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al.) for the advantage of user enjoyment/observation of live images of various locations at remote locations (see Kuno; column 1, lines 15 – 20).

83. As for **Claim 93** (also see 112, second paragraph, rejection above), Ishikawa et al. disclose, as clearly shown in figure 1, wherein said camera head (9) supports a single digital camera (9).

84. **Claims 32, 71, 77, and 86 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa Masahito et al. (JP 09-224111 A) in view of Kuno (US 6,567,121 B1) in further view of Haskin (US 5,790,910).**

NOTE: A computer translation of Ishikawa et al. will be used in the following rejections. However, for additional support, a human English-language translation by provided by Akiko Smith on March 5, 2007 is newly attached to this Office Action (see form PTO-892).

85. As for **Claims 71 and 77**, Ishikawa discloses a wall mount (as recited above); however, Ishikawa is silent with respect to the structural details of the wall mount. Specifically, Ishikawa is silent with respect to the boom being coupled to a mount that is secured to said wall surface.

On the other hand, Haskin also provides a camera system for capturing an image of a target area. Specifically, Haskin teaches, as shown in figure 1, a camera (22) attached to a distal end (28) of a boom assembly (20) mounted, via a wall mount (37), on a wall surface (23). Haskin additionally teaches, as further shown in figure 1, the boom (20) being coupled to a mount (37) that is secured to said wall surface (23).

At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have incorporate the boom being coupled to a mount that is secured to said wall



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surface (as taught by Haskin) in the camera system with boom assembly mounted on a wall surface (as disclosed by Ishikawa) for the advantage of *providing a mounting assembly that is easy to adjust once in place and that permits mounting directly to an electrical junction box* (see Haskin; column 1, lines 14 – 25).

86. As for **Claims 32 and 86**, Ishikawa discloses a wall mount (as recited above); however, Ishikawa is silent with respect to the structural details of the wall mount. Specifically, Ishikawa is silent with respect to the wall mount being releasably coupled to a wall plate secured to said wall surface.

On the other hand, Haskin also provides a camera system for capturing an image of a target area. Specifically, Haskin teaches, as shown in figure 1, a camera (22) attached to a distal end (28) of a boom assembly (20) mounted, via a wall mount (37), on a wall surface (23). Haskin additionally teaches, as further shown in figure 1, the wall mount (37) being releasably coupled (via screws 34) to a wall plate (38) secured to said wall surface (23).

At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have incorporate the wall mount being releasably coupled to a wall plate secured to said wall surface (as taught by Haskin) in the camera system with boom assembly mounted on a wall surface (as disclosed by Ishikawa) for the advantage of *providing a mounting assembly that is easy to adjust once in place and that permits mounting directly to an electrical junction box* (see Haskin; column 1, lines 14 – 25).

87. **Claims 33 – 35, 40, 87 – 89, and 94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa Masahito et al. (JP 09-224111 A) in view of Kuno (US 6,567,121 B1) in further view of Byrd et al. (US 6,633,328 B1).**

NOTE: A computer translation of Ishikawa et al. will be used in the following rejections. However, for additional support, a human English-language translation by provided by Akiko Smith on March 5, 2007 is newly attached to this Office Action (see form PTO-892).

88. As for **Claims 33 and 87**, Ishikawa et al. disclose a boom assembly (not expressly labeled) adapted to extend outwardly from a from a generally vertical surface (2), said boom assembly including a wall mount (not expressly labeled; although the boom is clearly shown to be attached to the upper left and upper right walled surfaces of the electronic blackboard 2), a boom (*two boom arms*) extending outwardly from said wall mount (again not expressly labeled) and a camera head (9) adjacent a distal end of said boom arm (clearly shown in figure 1), said camera head (9) supporting at least one digital camera (9); however, Ishikawa et al. do not disclose *wherein said boom assembly is articulated and moveable between an extended operating position and a folded retracted condition*.

In analogous art, Byrd et al. also disclose a camera system for capturing images of a target area using a camera attached to the distal of end of a boom assembly extending outward from a wall surface. Specifically, Byrd et al. teach, as shown in figure 1, a camera system with a digital camera (20) capturing an image of a target area (10), wherein the digital camera is attached to the distal end (14) of a boom assembly (see figures 9 – 11), wherein the boom assembly extends outward from a wall surface (134). However, Byrd et al. additionally teach, as shown in figures 9 – 11 and as stated in columns 4 (lines 35 – 45) and 8 (lines 6 – 67), wherein

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said boom assembly is articulated and moveable between an extended operating position and a folded retracted condition.

At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have included a boom assembly that is articulated and moveable between an extended operating position and a folded retracted condition (as taught by Byrd et al.) in the camera system with boom assembly (disclosed by Ishikawa et al.) for the advantage of *providing 360° image rotation such that a single user may be able to properly orient the camera system and generate understandable video images* (see Byrd et al.; column 2, lines 11 – 35).

89. As for **Claims 34 and 88**, Byrd et al. disclose, as shown in figures 1 and 9 – 11 and as stated in columns 4 (lines 35 – 45) and 8 (lines 6 – 67), wherein said boom assembly includes a pair of hinges at spaced locations along said boom to enable said boom to fold over itself.

90. As for **Claims 35 and 89**, Byrd et al. disclose, as shown in figures 1 and 9 – 11 and as stated in columns 4 (lines 35 – 45) and 8 (lines 6 – 67), wherein each of said hinges includes a locking mechanism to retain said boom assembly in said extended operating position (A “slip ring”, which Byrd et al. provide, is a locking mechanism.).

91. As for **Claims 40 and 94**, Ishikawa et al. disclose a boom assembly (not expressly labeled) adapted to extend outwardly from a from a generally vertical surface (2), said boom assembly including a wall mount (not expressly labeled; although the boom is clearly shown to be attached to the upper left and upper right walled surfaces of the electronic blackboard 2), a boom (*two* boom arms) extending outwardly from said wall mount (again not expressly labeled) and a camera head (9) adjacent a distal end of said boom arm (clearly shown in figure 1), said camera head (9) supporting at least one digital camera (9); however, Ishikawa et al. do not

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*disclose wherein said digital camera is pivotally mounted on said camera head and is moveable about an arc to capture images of distinct sections of said target area, images of adjacent distinct sections of said target overlapping.*

In analogous art, Byrd et al. also disclose a camera system for capturing images of a target area using a camera attached to the distal end of a boom assembly extending outward from a wall surface. Specifically, Byrd et al. teach, as shown in figure 1, a camera system with a digital camera (20) capturing an image of a target area (10), wherein the digital camera is attached to the distal end (14) of a boom assembly (see figures 9 – 11), wherein the boom assembly extends outward from a wall surface (134). However, Byrd et al. additionally teach, as shown in figures 9 – 11 and as stated in columns 4 (lines 35 – 45) and 8 (lines 6 – 67), wherein said digital camera is pivotally mounted on said camera head and is moveable about an arc to capture images of distinct sections of said target area, images of adjacent distinct sections of said target overlapping (The 360° camera movement of Byrd et al. corresponds to the claimed “arc”).

At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have included wherein said digital camera is pivotally mounted on said camera head and is moveable about an arc to capture images of distinct sections of said target area, images of adjacent distinct sections of said target overlapping. (as taught by Byrd et al.) in the camera system with boom assembly (disclosed by Ishikawa et al.) for the advantage of *providing 360° image rotation such that a single user may be able to properly orient the camera system and generate understandable video images* (see Byrd et al.; column 2, lines 11 – 35).

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92. **Claims 36 – 38 and 90 – 92 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa Masahito et al. (JP 09-224111 A) in view of Kuno (US 6,567,121 B1) in further view of Saund et al. (US 6,570,612 B1).**

NOTE: A computer translation of Ishikawa et al. will be used in the following rejections. However, for additional support, a human English-language translation by provided by Akiko Smith on March 5, 2007 is newly attached to this Office Action (see form PTO-892).

93. As for **Claims 36 and 90**, Ishikawa et al. disclose a boom assembly (not expressly labeled) adapted to extend outwardly from a from a generally vertical surface (2), said boom assembly including a wall mount (not expressly labeled; although the boom is clearly shown to be attached to the upper left and upper right walled surfaces of the electronic blackboard 2), a boom (*two boom arms*) extending outwardly from said wall mount (again not expressly labeled) and a camera head (9) adjacent a distal end of said boom arm (clearly shown in figure 1), said camera head (9) supporting at least one digital camera (9); however, Ishikawa et al. do not disclose *wherein said camera head supports a plurality of digital cameras, each of said digital cameras having a field of view that encompasses a distinct section of said target area, fields of view of adjacent digital cameras overlapping slightly.*

In analogous art, Saund et al. also disclose a camera system for capturing images of a target area using a camera attached to the distal of end of a boom assembly extending outward from a wall surface. Specifically, Saund et al. teach, as shown in figures 1, 3, and 4 and as stated in column 3 (lines 10 – 49), a camera system with a camera head (54) capturing an image of a target area (52), wherein the camera head supports a plurality of digital cameras (“array of fixed or rotatable cameras”), each of said digital cameras (54) having a field of view that encompasses

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a distinct section of said target area (see figure 3), fields of view of adjacent digital cameras overlapping slightly (see figure 4).

At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have included a camera head that supports a plurality of digital cameras, each of said digital cameras having a field of view that encompasses a distinct section of said target area, fields of view of adjacent digital cameras overlapping slightly (as taught by Saund et al.) in the camera system with boom assembly (disclosed by Ishikawa et al.) for the advantage of *providing an image of a board surface that eliminates the effects of variable illumination and artifacts* (see Saund et al.; column 1, line 65 – column 2, line 2).

94. As for **Claims 37 and 91**, Saund et al. disclose, as shown in figures 1, 3, and 4 and as stated in column 3 (lines 10 – 49), wherein said camera head supports a pair of digital cameras. The Examiner submits the claim language such that a pair of digital cameras corresponds to at least two digital cameras.

95. As for **Claims 38 and 92**, Saund et al. disclose, as shown in figures 1, 3, and 4 and as stated in column 3 (lines 10 – 49), wherein said camera head supports three digital cameras. The Examiner submits the claim language such that a pair of digital cameras corresponds to at least two digital cameras.

96. **Claims 41, 50, and 95** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa Masahito et al. (JP 09-224111 A) in view of Kuno (US 6,567,121 B1) and in further view of Komori Shigehiro et al. (JP 08-108689 A).

NOTE: A computer translation of Ishikawa et al. and Komori et al. will be used in the following rejections. However, for additional support, a human English-language translation for Ishikawa Masahito et al. by provided by Akiko Smith on March 5, 2007 and a human English-language translation for Komori Shigehiro et al. provided by Schreiber Translation in March 2007 are newly attached to this Office Action (see form PTO-892).

97. As for **Claims 41, 50, and 95**, Ishikawa et al. is silent with respect to the boom assembly having a length of from about 30 to 50 inches, as claimed.

On the other hand, Komori et al. also provide a camera system capturing images of a target area having a boom assembly. Specifically, Komori et al. teach, as shown in figures 1 and 2, a wall surface/target area (1) having a boom assembly (3) connected thereto, wherein the boom assembly (3) extends generally horizontally from the wall surface/target area (1). Furthermore, in paragraphs 007 – 009, Komori et al. indicate that the blackboard writing surface has common dimensions of 900 mm by 1800 mm (~ 35" by 70") and that the boom arm is exactly have the length of blackboard writing surface and that when the boom assembly is extended outward from the surface/area (1) is remains centered with respect to the writing surface. Therefore, the Examiner concludes that angle A in figure 2 is a 60-degree angle and the adjacent sides, one of which is the boom assembly, are each 35 inches (i.e., exactly half the width of the blackboard writing surface indicated by Komori et la.). Thus, Komori teaches the boom assembly having a length of from about 30 to 50 inches, as claimed.

At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have incorporated the boom assembly having a length of from about 30 to 50 inches (as taught by Komori et al.) in the camera system with a boom assembly (disclosed by

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Ishikawa et al.) for the advantage of *providing a boom assembly that is of an easy configuration for easy movement such that the boom is able to avoid becoming a user's trouble in a time of non-use* (see Effect of the Invention paragraph of Komori et al.).

98. **Claim 59 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa Masahito et al. (JP 09-224111 A) in view of Haskin (US 5,790,910).**

NOTE: A computer translation of Ishikawa et al. will be used in the following rejections. However, for additional support, a human English-language translation by provided by Akiko Smith on March 5, 2007 is newly attached to this Office Action (see form PTO-892).

99. As for **Claim 59**, Ishikawa discloses a wall mount (as recited above); however, Ishikawa is silent with respect to the structural details of the wall mount. Specifically, Ishikawa is silent with respect to the wall mount being releasably coupled to a wall plate secured to said wall surface.

On the other hand, Haskin also provides a camera system for capturing an image of a target area. Specifically, Haskin teaches, as shown in figure 1, a camera (22) attached to a distal end (28) of a boom assembly (20) mounted, via a wall mount (37), on a wall surface (23). Haskin additionally teaches, as further shown in figure 1, the wall mount (37) being releasably coupled (via screws 34) to a wall plate (38) secured to said wall surface (23).

At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have incorporate the wall mount being releasably coupled to a wall plate secured to said wall surface (as taught by Haskin) in the camera system with boom assembly mounted on a wall surface (as disclosed by Ishikawa) for the advantage of *providing a mounting*



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*assembly that is easy to adjust once in place and that permits mounting directly to an electrical junction box* (see Haskin; column 1, lines 14 – 25).

100. **Claims 68 and 74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa Masahito et al. (JP 09-224111 A).**

NOTE: A computer translation of Ishikawa et al. will be used in the following rejections. However, for additional support, a human English-language translation by provided by Akiko Smith on March 5, 2007 is newly attached to this Office Action (see form PTO-892).

101. For **Claim 68**, Ishikawa et al. disclose, as shown in figure 1 and as indicated in paragraphs 11 – 20, a system for capturing images of a writing surface (2) comprising:

a boom (clearly shown in figure 1; although not expressly labeled) extending outwardly from a wall surface (The Examiner considers to the *blackboard surface 2* to be a *wall surface*, as claimed.) and being positioned above said writing surface to be imaged (As clearly shown in figure 1, the camera 9 is positioned via two support arms, not labeled, that extend *horizontally* and *perpendicularly* from the plane of the target area 2);

an digital camera device (“color camera 9”) mounted on said boom at a location laterally spaced from said wall surface (“field 2”; seen clearly from figure 1), said digital camera device (9) being actuable to capture an image of said writing surface (2); and

a controller (output unit 21) in communication with said digital camera device (9), said controller (21) conditioning said digital camera device to capture at least one image of said writing surface in response to operator input (not explicitly recited; however, all electronic devices inherently require at least some operator input, such as powering the device on/off), and

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processing the acquired the at least one image to yield a digital output image, said digital output image comprising all visible pen strokes on said writing surface irrespective of the pen tool used to make said pen strokes (see Response to Arguments above; also see human English-language translation of Ishikawa et al.; paragraphs 0012 – 0014).

Ishikawa et al. disclose wherein the wall surface is coterminous with the writing surface, but do not specify where the controller is positioned. Accordingly, Ishikawa et al. do not disclose wherein the controller is mounted on the wall surface and/or one side of said writing surface.

However, Official Notice (MPEP § 2144.03) is taken that both the concepts and advantages of mounting a controller on a wall surface/writing surface are well known and expected in the art. At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have mounted the controller on the wall surface/writing surface of Ishikawa et al. for the advantage of *providing a controller that is of an easy configuration such that the controller is able to avoid becoming a user's trouble in a time of non-use.*

102. For **Claim 74**, Ishikawa et al. disclose, as shown in figure 1 and as indicated in paragraphs 11 – 20, an imaging system to capture an image of a write board (2), said imaging system comprising:

a boom (clearly shown in figure 1; although not expressly labeled) configured to extend outward from said write board (The Examiner considers to the *blackboard surface 2* to be a *wall surface*, as claimed.) and above said write board (As clearly shown in figure 1, the camera 9 is positioned via two support arms, not labeled, that extend *horizontally* and *perpendicularly* from the plane of the target area 2);

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an imaging device (“color camera 9”) mounted on said boom at a location laterally spaced from said write board (“field 2”; seen clearly from figure 1), said imaging device (9) being actuable to capture an image of said write board (2); and

a controller (output unit 21) in communication with said digital camera device (9), said controller (21) conditioning said digital camera device to capture at least one image of said writing surface in response to operator input (not explicitly recited; however, all electronic devices inherently require at least some operator input, such as powering the device on/off), and processing the acquired the at least one image to yield a digital output image, said digital output image comprising all visible pen strokes on said writing surface irrespective of the pen tool used to make said pen strokes (see Response to Arguments above; also see human English-language translation of Ishikawa et al.; paragraphs 0012 – 0014).

Ishikawa et al. disclose wherein the wall surface is coterminous with the write board, but do not specify that the (a) write board is mounted on the wall surface or where the controller is positioned. Accordingly, Ishikawa et al. do not disclose (b) wherein the controller is mounted on the wall surface and/or one side of said writing surface.

In regards to (a), **Official Notice** (MPEP § 2144.03) is taken that both the concepts and advantages of mounting a writing surface (e.g., whiteboard or blackboard) on a wall are well known and expected in the art. At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have mounted the writing surface of Ishikawa et al. on a wall such that the boom assembly extends horizontally outward from the board mounted on the wall for the advantage of *reducing the effects of variable illumination and shadow casting on the writing surface of the board.*

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In regards to (b), **Official Notice** (MPEP § 2144.03) is taken that both the concepts and advantages of mounting a controller on a wall surface/writing surface are well known and expected in the art. At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have mounted the controller on the wall surface/writing surface of Ishikawa et al. for the advantage of *providing a controller that is of an easy configuration such that the controller is able to avoid becoming a user's trouble in a time of non-use.*

### ***Conclusion***

103. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

104. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Justin P Misleh whose telephone number is 571.272.7313. The Examiner can normally be reached on Monday through Friday from 8:00 AM to 5:00 PM.

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If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Vivek Srivastava can be reached on 571.272.7304. The fax phone number for the organization where this application or proceeding is assigned is 571.273.8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JPM  
April 16, 2007



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